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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Horst Glatz

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EXAMINER

CHANG, RICK KILTAE

ART UNIT

PAPER NUMBER

3726

MAIL DATE

DELIVERY MODE

11/02/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,955	Applicant(s) GLATZ ET AL.	
	Examiner Rick K. Chang	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-23 is/are pending in the application.
- 4a) Of the above claim(s) 6-16 and 19-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5, 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 19-23 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: forming a recrystallized state . . . is performed after cutting step.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 19-23 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Objections

2. Claims 2-3, lines 1-3 and claims 4-5, lines 1-3 are objected to because of the following informalities: for example, amend “Method for the manufacture of heat-exchanger tubes according to claim 18, characterized in that” to –The method of manufacturing lamellar U-shaped heat-exchanger tubes according to claim 18, wherein--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 18 and 2-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant

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art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The disclosure, as originally filed, failed to provide support for “forming a recrystallized state in the drawn heat exchanger tube material after producing step, coiling step, uncoiling step or combination thereof” (claim 18, lines 3-13), “the drawn tube material is subjected to quality control during or after producing step or coiling step” (claim 2, lines 3-4) and “the drawn heat-exchanger tube material is flushed with inert gas during or after producing step, coiling step, uncoiling step, straightening step or forming step” (claim 3, lines 3-4).

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 18 and 2-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18, lines 11-12: "the drawn heat-exchanger tube material" lacks positive antecedent basis.

Claims 2-3, line 3: "the drawn heat-exchanger tube material" lacks positive antecedent basis.

Claim 4, lines 3-4: "the drawn heat-exchanger tube material" lacks positive antecedent basis.

Claim 4, line 3: “the direction” lacks positive antecedent basis.

Claim 5, line 4: “the quality control” lacks positive antecedent basis.

Claims are ambiguous and competitors would be unable to discern the bounds of the invention.

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Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 18 and 2-5, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Uhlmann et al (US 4,393,566) in view of Uhlmann et al (US 3,934,449; hereinafter referred to as “Un”), and further in view of N. A. Franks (US 3,568,488).

Re claim 1: Uhlmann discloses producing, coiling and uncoiling the drawn heat-exchanger tube material made of a non ferrous metal (copper) from a storage device, straightening the drawn tube material, forming a recrystallized state in the drawn heat-exchanger tube material by annealing and subsequently cooling the drawn tube material (it is inherent that heating and cooling result in recrystallization) and cutting (Abstract, entire cols. 1-7), except for coiling the drawn heat-exchanger tube material horizontally in a round open-top container; uncoiling the drawn heat-exchanger tube material from the container; bending the tube portions into a U-shape.

Un discloses coiling the drawn heat-exchanger tube material horizontally in an open-top container; uncoiling the drawn heat-exchanger tube material from the container (Figs. 1-2).

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to provide a round container because Applicant has not disclosed that providing a round container provides an advantage, is used for a particular purpose, or solves a stated problem. It is obvious and well known in the art that the Un’s

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container (6) is also rounded to allow for the coiled tubing to expand inside the container without any gaps or kinks caused by different configuration of the container. Therefore, it would have been an obvious matter of design choice to modify Uhlmann and Un to obtain the invention as specified in claim 17.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Uhlmann by coiling the drawn heat-exchanger tube material horizontally in a round open-top container; uncoiling the drawn heat-exchanger tube material from the container, as taught by Un, for the purpose of preventing unexpected uncoiling of the coiled tube material.

Franks discloses bending the tube portions into a U-shape (Fig. 7, copper tubes for cooling purposes).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Uhlmann by bending the tube portions into a U-shape, as taught by Franks, for the purpose of meeting the design criteria.

Re claims 2, 5: Uhlmann discloses that the drawn tube material or the tube portions are subjected to quality control in one of steps a) to c) and after cutting to length for separation into tube portions, defective tube portions are sorted out after the quality control (col. 7, lines 10-13; it is inherent that if the desire results are not met, the tube portions are discarded from the ones that met the desire results).

Re claims 3-4: Uhlmann discloses that the drawn tube material (i) is flushed with inert gas and the inert gas flows counter to the direction in which the drawn tube material (I) is uncoiled (col. 1, lines 44-68 and entire cols. 2-7).

Response to Arguments

9. Applicant's arguments filed 10/6/10 have been fully considered but they are not persuasive.

Since Uhlmann et al '449 discloses the claimed limitations and the container (6) is also rounded to allow for the coiled tubing to expand inside the container without any gaps or kinks caused by different configuration of the container, it must be concerned with manufacturing lamellar heat-exchanger tubes.

Interviews After Final

10. Applicant note that an interview after a final rejection must be submitted briefly in writing the intended purpose and content of the interview (the agenda of the interview must be in writing). Upon review of the agenda, the Examiner may grant the interview if the examiner is convinced that disposal or clarification for appeal may be accomplished with only nominal further consideration. Interviews merely to restate arguments of record or to discuss new limitations will be denied. See MPEP 714.13 and 713.09.

Conclusion

11. Please provide reference numerals (either in parentheses next to the claimed limitation or in a table format with one column listing the claimed limitation and another column listing corresponding reference numerals in the remark section of the response to the Office Action) to all the claimed limitations as well as support in the disclosure for better clarity (optional). Applicants are duly reminded that a full and proper response to this Office Action that includes any amendment to the claims and specification of the application as originally filed requires that

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the applicant point out the support for any amendment made to the disclosure, including the claims. See 37 CFR 1.111 and MPEP 2163.06.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rick K. Chang whose telephone number is (571) 272-4564. The examiner can normally be reached on 5:30 AM to 1:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rick K. Chang/
Primary Examiner, A.U. 3726

RC
November 2, 2010